

CERCLIS No. TXD008012254

**REMOVAL FUNDED REPORT
for
ODESSA DRUM COMPANY
ODESSA, ECTOR COUNTY, TEXAS**

November 20, 1997

Prepared for

Henry Thompson, Jr.
Project Officer
Program Management Branch
U.S. EPA - Region 6

EPA Contract No. 68-W6-0013



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CERCLIS No. TXD008012254

Date: November 20, 1997

To: Greg Fife, Task Monitor
EPA, Region 6, Response and Prevention Branch

Thru: Henry Thompson, Jr., PO
EPA, Region 6, Program Management Branch

Thru: Chris Quina, STL
Region 6, Superfund Technical Assessment and Response Team Leader

From: Steve Cowan *SC*
Region 6, Superfund Technical Assessment and Response Team

Subj: Removal Support: Odessa Drum Company Site
Odessa, Ector County, Texas
TDD No: S06-9706-0012
PAN No: 034601RAXX
Latitude: 31°54'35" North
Longitude: 102°25'05" West

Geographic coordinates of the site were scaled from a U.S. G. S. 7.5 minute series topographic map, Odessa, N.W., utilizing the process building as the center point.

I. INTRODUCTION

On June 19, 1997, the U.S. Environmental Protection Agency - Response and Prevention Branch (EPA-RPB) Region 6, tasked the Ecology and Environment, Inc., (E&E) Superfund Technical Assessment and Response Team (START) to provide technical support for removal actions conducted at the Odessa Drum Company (ODC) site located in Odessa, Ector County, Texas. This removal action was Phase III of a clean-up strategy that began in January, 1995. START was directed by the EPA Task Monitor (TM), Greg Fife, to provide technical support and contractor monitoring for the removal actions. START was specifically tasked to:

- Document all site activities by maintaining site log, pertinent site files, and

- photographs of removal activities, etc.;
- Provide assistance in the coordination of State and local officials as appropriate;
- Collect post excavation surface soil samples from the excavated grids;
- Procure an analytical laboratory for the analysis of the verification samples;
- Perform other duties as site conditions demand;
- Perform data validation review of the analytical results; and
- Prepare a Quality Assurance Sampling Plan (QASP).

See Attachment D: Table 1 for the organizational breakdown of the removal actions conducted at the ODC site.

II. BACKGROUND

The Odessa Drum Company (ODC) is an inactive and abandoned drum cleaning and recycling facility located in the unincorporated northwest section of Odessa, Ector County, Texas. ODC operated from 1962 to 1990. The street address for ODC is 2214 Alice Street. Geographic coordinates of the site, as determined from a U.S.G.S. 7.5 minute series topographic map (Odessa, NW, TX) are 31°54'35" north latitude and 102°25'05" west longitude (Attachment A: Figure 1). The site encompasses approximately 9.7 acres, which has been divided into two tracts (Attachment A: Figure 2). Tract 1 encompasses 4.8 acres and is located north of Alice Street. Activities on Tract 1 consisted of the reconditioning and storage of reconditioned drums. Tract 2 encompasses 4.9 acres and is located north of Judy Street. Tract 2 was used to temporarily store drums containing waste material.

The facility was operated by Mr. Charles Harris, who ceased operations and abandoned the site in February, 1990. The Texas Water Commission (TWC), now known as the Texas Natural Resource Conservation Commission or TNRCC, issued fines to ODC for failure to properly manage the on-site hazardous waste. Due to the failure of ODC to pay for the fines leveled against it by the TWC, the TWC notified the EPA of its potential for bankruptcy in 1989.

The site is located in a mixed residential/industrial/oil and gas production area. Three residential properties are located within 100 feet of the site. Four buildings are located on Tract 1: one small office building, one process building, and two storage buildings (Attachment A: Figure 2). When the Potential Responsible Party (PRP) abandoned the site in February 1990, approximately 100,000 drums remained on-site. The drums were stacked five and six levels in height and approximately 170 rows deep throughout Tract 1. The property was partially enclosed by a chain-linked fence, leaving the drums and their contents accessible to the public. The site was

deemed a threat to area residents due to the high risk of direct contact; ingestion and inhalation of uncontained/poorly managed chemical wastes.

ODC received waste chemical drums from various industries, including chemical plants and oil field service companies. The cleaning and reconditioning of the drums can be described as follows: contents of the drums were drained into tanks or drums for temporary storage. The emptied drums were then cleaned with phosphoric acid solutions; integrity tested, painted and then resold as reconditioned drums. The process generated hazardous wastes from the original contents and contaminated rinsate solutions. Drums, which arrived at the facility in poor condition and those drums containing materials that could not be re-sold were discarded in the "boneyard" (Tract 2).

A significant quantity of material contained in the on-site drums and tanks were classified as flammable liquids, sludges and solids. Due to the poor condition of the drums and the haphazard stacking of drums, there existed the potential for incompatible materials to come into contact with each other, possibly causing a chemical reaction and/or potential fire resulting in a toxic plume which would threaten an extensive area of residential and commercial properties.

III. PREVIOUS INVESTIGATIONS

Based on the site conditions at the time of abandonment, the EPA-Emergency Response Branch (EPA-ERB) directed the Technical Assistance Team (TAT) to conduct a site assessment at the ODC facility. During the week of April 24, 1990, the TAT conducted the site assessment at ODC. The TAT observed numerous drums containing corrosives, organic materials and heavy metal contaminated wastes, stained soil and stressed vegetation. One surface soil sample was collected during the site assessment and chemical analysis of the soil sample indicated the presence of elevated concentrations of polyaromatic hydrocarbons (PAHs) and heavy metals. TAT site assessment activities are summarized in the TAT deliverable prepared under TDD No. T06-9004-009.

Removal activities were initiated at ODC on August 18, 1990 and continued until July 19, 1991. Approximately 4,600 55-gallon drums and six large above ground storage tanks were inventoried, staged, sampled, hazard categorized, and their contents properly disposed. Approximately 2,000 drums contained wastewater from the ODC drum rinsing process. The remaining 2,600 drums contained discarded or spent product, residues, waste or other hazardous substances and contaminants brought to the site. A summary of the EPA-ERB removal actions can be found in the TAT deliverable prepared under TDD No. T06-9010-011.

Beginning in January 1995, EPA-ERB initiated a three phase clean-up strategy for the site. The total clean-up strategy includes:

- PHASE I: Removal and disposal of all drums and their contents,
- PHASE II: Determine the extent of soil contamination, and
- PHASE III: Excavate and dispose of contaminated soil.

Phase I was initiated in January 1995 with the removal and disposal of approximately 72,000 drums and their contents. Rivas Environmental Consultants (REC) was contracted by the EPA-ERB to conduct the removal actions associated with PHASE I operations. During Phase I operations, material in the drums were hazard categorized, then segregated, bulked, and disposed off-site to appropriate disposal facilities. All on-site empty steel/polyurethane drums were crushed/shredded and sent to recycling facilities. The cumulative total of crushed and shredded drums from Tract 1 is 64,525 and 7,084, respectively. A total of 198,520 gallons of neutral solids and liquids (Non-regulated) and 64,375 gallons of corrosive liquids were transported off-site to USPCI Lone Mountain Facility, Waynoka, Oklahoma. Phase I removal actions concluded on December 28, 1995. For additional information on Phase I activities, refer to the TAT removal report prepared under TDD No. T06-9510-035.

Phase II of the clean-up strategy was initiated on March 17, 1996 and included the extent of soil contamination survey. A total of 86 composite surface soil samples were collected from Tract 1 and seven grab samples were collected from Tract 2. Chemical analyses of the samples indicated the presence of organic and inorganic contamination in 19 of the grids exceeding the corresponding detection limits or Texas Risk Reduction Standards (Tx RRS) for those analytes or compounds (Attachment A: Figure 3). For additional information on Phase II activities, refer to the START site assessment report under TDD No. S06-9602-026.

IV. ACTIONS TAKEN

Phase III of the ODC removal activities was initiated to address the excavation and disposal of contaminated surface soil identified during the Phase II site assessment. On July 21, 1997, Greg Fife, the EPA-TM, Mike Owens, the Emergency and Rapid Response Service (ERRS) contractor Remedial Manager and Steve Cowan, START, conducted a "site walk through" to determine the location of a command post and necessary equipment needed to conduct the removal actions.

During the week of July 28, 1997, the ERRS contractor constructed the containment cell for the

temporary storage of excavated soil, set up the command post and prepared the site for the removal actions. On August 4, 1997, START mobilized to the site to conduct contractor monitoring and provide technical assistance. It had been determined by the EPA-TM that those grids that contained contamination exceeding the detection limits or the Tx RRS for those compounds, as determined during the Phase II actions, were to be targeted for excavation (Attachment A: Figure 4). The preliminary excavation depth was established at 6 inches below ground surface (bgs). If visual contamination was observed after the initial 6-inch excavation, additional excavation was to be conducted. If a sample was collected from a grid, the analytical results were compared to the Tx RRS to determine if further excavation and collection of post excavation samples were warranted.

Between August 4, 1997 and August 13, 1997, the ERRS contractor excavated soil from eight grids: L4, D4, D6, E5, F2, F3/G3 and K7 (Attachment A: Figure 4). All grids, except grid D6, were excavated to a depth of six inches bgs. Due to visual contamination at the 6-inch depth, an additional 6 inches of soil was excavated from grid D6. All excavated soil was transported to the containment cell for temporary storage until arrangements could be made for the off-site disposal of the wastes. In addition, grid L4 was backfilled with soil and compacted, thus, completing the removal actions at that grid.

On August 11, 1997, START collected three biased surface soil samples from grids K7, F2 and D6 (Attachment A: Figure 5). The samples were shipped to Specialized Assays in Nashville, Tennessee, for chemical analyses (Attachment D: Table 2). Chemical analyses of the samples collected from grids F2 and K7 did not indicate the presence of chromium, lead or mercury in concentrations exceeding the corresponding Tx RRS (Attachment D: Table 3). Chemical analysis of the sample collected from grid D6 did indicate the presence of 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, chromium and lead; however, the detected concentrations did not exceed the corresponding Tx RRS (Attachment D: Table 3).

On August 13, 1997, the ERRS contractor collected waste profile/disposal samples from the excavated soil and contaminated grids to determine the type and number of waste streams and applicable disposal options. The seven samples were shipped to ETTL Engineers and Consultants laboratory located in Tyler, Texas. Three waste streams were identified during the waste profiling of the contaminated soil:

- Waste stream #1: Waste toxic, solid organics (pesticides);
- Waste stream #2: Non-RCRA hazardous waste solids (metals, volatiles and semi-volatile organic compounds; and

- Waste stream #3: Non-hazardous debris

Waste stream #1 soils were located in grids D1/D2, H3, H4, H5, F7, F8 and G8. Waste stream #2 soils were located in grids C3, D3, D4, D5, D6, E3, E4, E5, F2, F3/G3, J6, K7 and L4.

Between August 14 and August 19, 1997, the ERRS contractor excavated three grids: H3, H4 and H5. Due to visual contamination at the 6-inch depth, the soil in these grids was excavated to a depth of 1 to 3 feet bgs. During the excavation of these three grids, numerous drum lids were discovered within the grid and underneath the concrete slab of the process building. The drum lids were removed, decontaminated and placed in a storage area until off-site disposal could be arranged.

Between August 19 and August 26, 1997, the ERRS contractor excavated contaminated soil from the following grids: C3, D1/D2, D3, D4, E3, E4, F8 and J6 (Attachment A: Figure 5). Due to visible contamination adjacent to grid D5, grid D4 was excavated to a depth of 3 feet bgs. During this time period, backfill soil was deposited and compacted within the following grids: F2, F3/G3 and K7. This completed the removal actions for those grids.

On August 20, 1997, START collected two composite surface soil samples (duplicate sample) from grids H3, H4 and H5, a composite surface soil sample from the backfill material, and a biased sample from grid E5 (Attachment A: Figure 5 and Attachment D: Table 2). Chemical analyses of the samples collected from the grids did not indicate the presence of contaminants in concentrations greater than the corresponding Tx RRS (Attachment D: Table 3). Chemical analysis of the sample collected from the backfill soil pile indicated the presence of naphthalene and toluene; however, the detected concentrations did not exceed the Tx RRS for those compounds.

On August 27, 1997, all excavation of contaminated soil ceased with the completion of grids F7 and G8. Twenty grids were excavated during the removal actions (Attachment A: Figure 4). During the excavation proceedings, all excavated soil was transported to the containment cell for temporary storage. Approximately 877.4 and 1,064.06 tons, respectively, of contaminated soil classified as Wastestream #1 and Waste stream #2 had been excavated by that date.

START collected biased surface soil samples from grids C3, E3 and J6 and two composite soil samples, one of which was a duplicate sample, from grids F7, F8 and G8. Chemical analyses of the samples indicated the presence of 4,4'-DDE in grids F7, F8 and G8 in concentrations that exceed the Tx RRS for 4,4'-DDE (Attachment D: Table 3).

Between August 26, 1997 and September 2, 1997, the ERRS contractor backfilled and compacted the following grids: D4, D5, D6, E4, H3, H4 and H5. This completed the work scheduled for those grids.

After soil excavation had ceased, ERRS arranged for the off-site disposal of the three identified waste streams. El-Tex was awarded the contract for the off-site disposal of Waste stream #1 and made the necessary arrangements for the contaminated soil to be transported to the Michigan Disposal Waste Treatment Plant (MDWTP) in Belleville, Michigan. The soil classified as waste stream #1 was to be treated using chemical oxidation and then disposed into the landfill.

Waste Control Specialists, located in Andrews, Texas was awarded the contract for the off-site disposal of Waste streams #2 and #3. Contaminated soil classified as Waste stream #2 was to be placed directly into the landfill for permanent disposal. The contaminated soil was not to be treated prior to placement into the landfill. Waste stream #3 was to be placed in the non-hazardous storage area within the landfill.

During the week of September 1, 1997, Waste stream #2 was transported to the Waste Control Specialist Landfill facility located in Andrews, Texas. The following trucking companies transported approximately 1,064.06 tons of contaminated soil to the facility: C.E.I., K.C.I and Bradshaw Trucking Company. All appropriate EPA and State regulations were followed for the transporting of Waste stream #2 wastes to the landfill facility (Attachment F).

On September 5, 1997, approximately 13.37 tons of non-hazardous debris (Waste stream #3) was transported to the Waste Control Specialist landfill facility in Andrews, Texas (Attachment F). The debris was transported to the landfill by the following trucking companies: C.E.I., and K.C. I.

During the week of September 8, 1997, contaminated soil classified as Waste stream #1 was shipped to MDWTP. Approximately 877.4 tons of contaminated soil was transported to the landfill facility, where it was to be chemically oxidized and then placed into the landfill for permanent storage. The following trucking companies, WTI and GSS, transported the contaminated soil to the landfill facility. All appropriate EPA and State of Michigan regulations were followed for the transporting of Waste stream #1 wastes to the landfill (Attachment E).

On September 11 and 12, 1997, approximately 91.94 tons of contaminated soil and plastic liner within the containment cell were removed and transported to the Waste Control Specialist landfill in Andrews, Texas. This material was classified as Waste streams #2 and #3. This

completed the off-site transportation of contaminated soils to their appropriate waste disposal facility.

After the contaminated soil had been removed from the containment cell, START divided the containment cell into three grids and collected three 18 point composite samples to determine if the integrity of the containment cell plastic liner had been breached during the off-site waste disposal proceedings. The sampling was witnessed by Mr. Ralph Johnson, TNRCC District 10, on September 12, 1997. The samples were shipped to Specialized Assays for volatile, semi-volatile, pesticide, PCB, lead, chromium and mercury analyses. Chemical analyses of the three samples indicated the presence of DDT, DDE, DDD, chromium and lead. However, the detected concentrations for these compounds did not exceed the Tx RRS for those compounds (Attachment D: Table 4).

After the verification samples had been collected by START, the ERRS contractor then dismantled the containment cell and graded the soil back to natural conditions. The ERRS contractor began to initiate de-mobilization proceedings on September 12, 1997. START de-mobilized from the site on September 13, 1997 and the ERRS contractor de-mobilized from the site on September 17, 1997.

Organization of the EPA site file is documented in the site file organization index (Attachment B). Elements of the Site File are referenced only in this report and have been placed in the EPA Site File Box.

ATTACHMENTS:

EPA FILE ATTACHMENTS

- A Figures: Figure 1: Site Location Map
 Figure 2: Site Sketch
 Figure 3: Contaminated Soil Grids
 Figure 4: Excavated Soil Grids
 Figure 5: Sample Location Map
- B Federal Records Center Transmittal and Receipt (FRCTR) List
- C Environmental Justice Report
- D Tables: Table 1: Odessa Drum Organizational Chart
 Table 2: Surface Soil Sampling Data

Table 3: Analytical Results, Verification of Cleanup Activities at Excavated Grids

Table 4: Analytical Results for Containment Cell

E Copy of TDD No. S06-9706-0012 and Amendment A

EPA Site File- 1 Box, See FRCTR List

TM/OSC FILE ATTACHMENTS

A Figures: Figure 1: Site Location Map
Figure 2: Site Sketch
Figure 3: Contaminated Soil Grids
Figure 4: Excavated Soil Grids
Figure 5: Sample Location Map

B FRCTR List

C Environmental Justice Report

D Tables: Table 1: Odessa Drum Organizational Chart
Table 2: Surface Soil Sampling Data
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Table 4: Analytical Results for Containment Cell

E Copy of Photographs

F Copy of TDD No. S06-9706-0012 and Amendment A

START FILE ATTACHMENTS

Binder 1 of 8

A Figures: Figure 1: Site Location Map
Figure 2: Site Sketch
Figure 3: Contaminated Soil Grids

Figure 4: Excavated Soil Grids
Figure 5: Sample Location Map

- B FRCTR List
- C Environmental Justice Report
- D Tables: Table 1: Odessa Drum Organizational Chart
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Table 4: Analytical Results for Containment Cell

Binder 2 of 8

- E Copy of Uniform Hazardous Waste Manifests: Waste stream #1
- F Copy of Uniform Hazardous Waste Manifests: Waste streams #2 & #3.
- G Quality Assurance Sampling Plan (QASP)

Binder 3 of 8

- H Copy of ERRS Waste Profile Analytical Results
- I Data Validation Review Summary: Volumes 1 through 4

Binder 4 of 8

- J Analytical Data Package: SDG 6S108; Volumes 1 through 4

Binder 5 of 8

- K EPA Chain of Custodies/Federal Express Airbills
- L Copy of Texas Risk Reduction Standards

Binder 6 & 7 of 8

M Photographs

Binder 8 of 8

N Negatives (START copy only)

O Copies of Logbooks: Logbook 1 (pages 01 through 48)
 Logbook 2 (pages 01 through 48)
 Logbook 3 (pages 01 through 48)
 Logbook 4 (pages 01 through 18)

P Pollution Reports: 1 through 7

Q Copy of TDD No. S06-9706-0012 and Amendment A

ATTACHMENT A

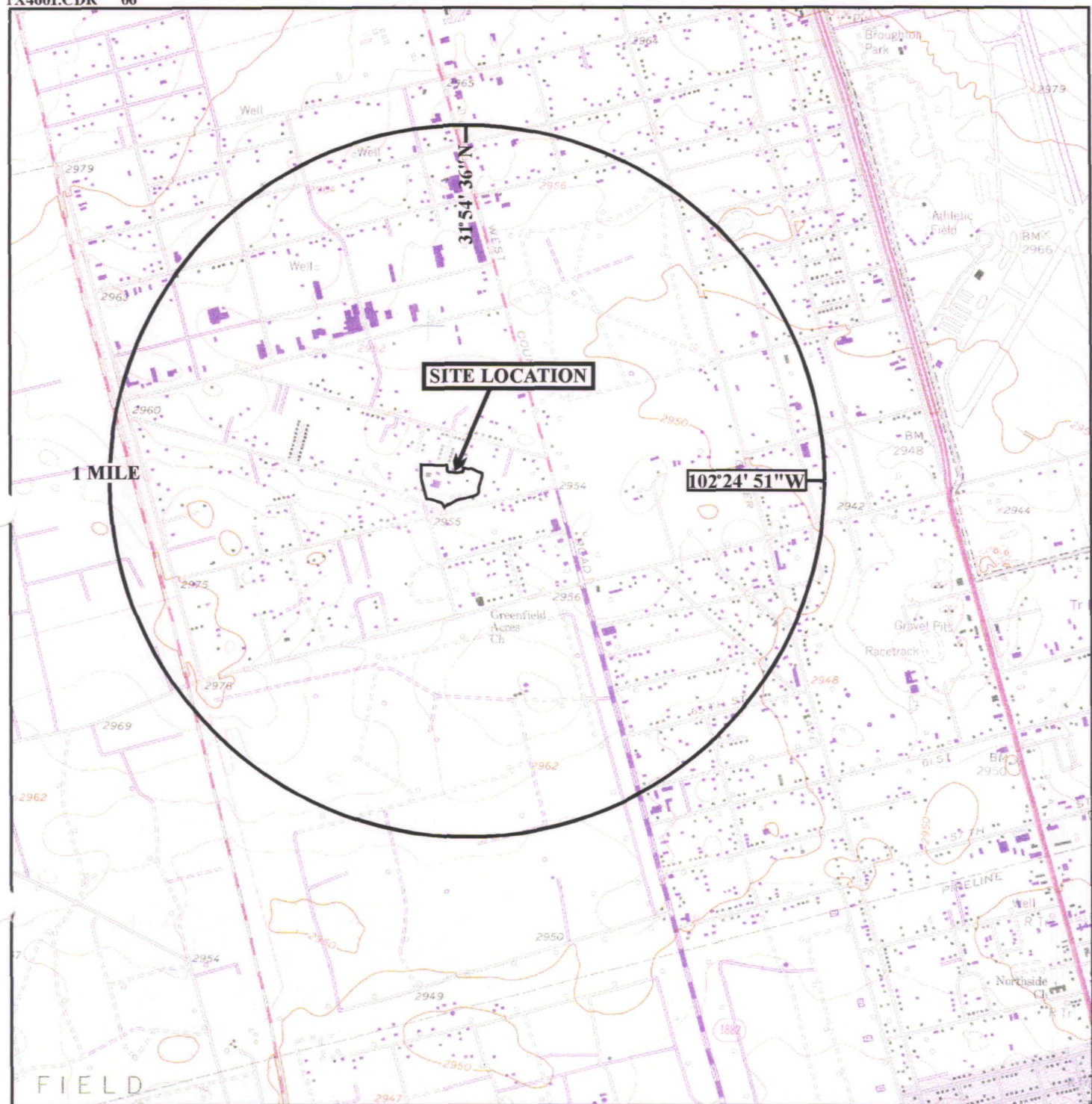
Figure 1: Site Location Map

Figure 2: Site Sketch

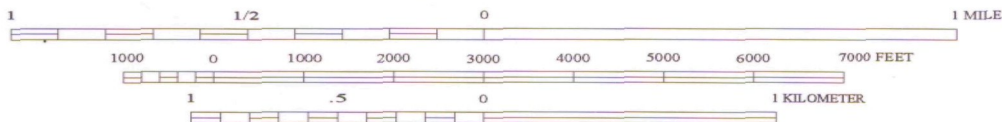
Figure 3: Contaminated Soil Grids

Figure 4: Excavated Soil Grids

Figure 5: Sample Location Map



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET



QUADRANGLE LOCATION

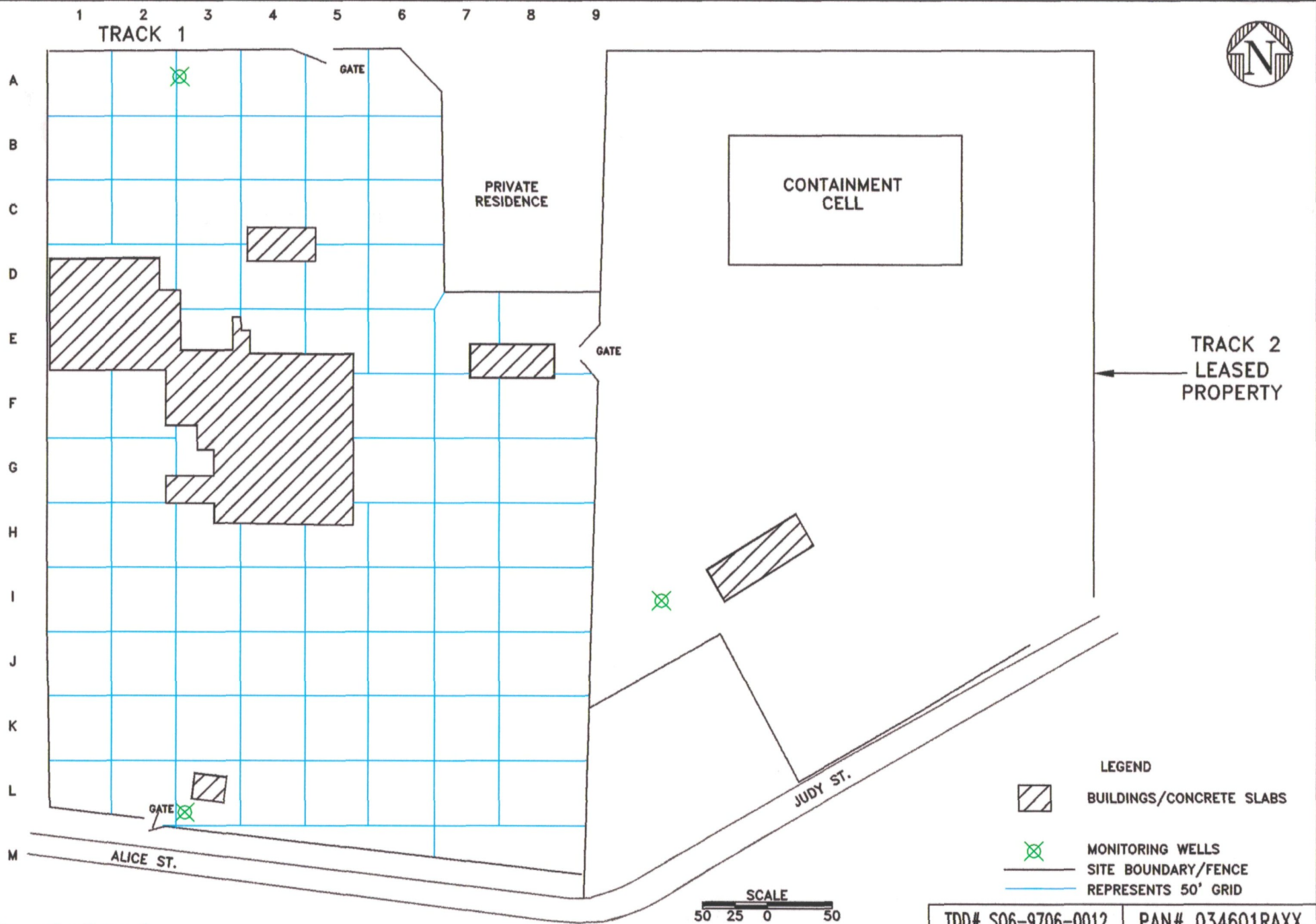
ecology and environment, inc.
**Superfund Technical Assessment
 & Response Team Region 6**

CERCLIS/CASE#: TXD008012254

TDD# SO6-9706-0012

SOURCE: U.S.G.S. 7.5 MIN. TOPOGRAPHIC QUADRANGLES
 ODESSA NW, TX 1964

FIGURE 1
SITE LOCATION MAP
ODESSA DRUM COMPANY



TDD# S06-9706-0012

PAN# 034601RAXX

FIGURE 2
SITE SKETCH
ODESSA DRUM COMPANY
Odessa, Ector County, Texas

CERCLIS# TXD008012254

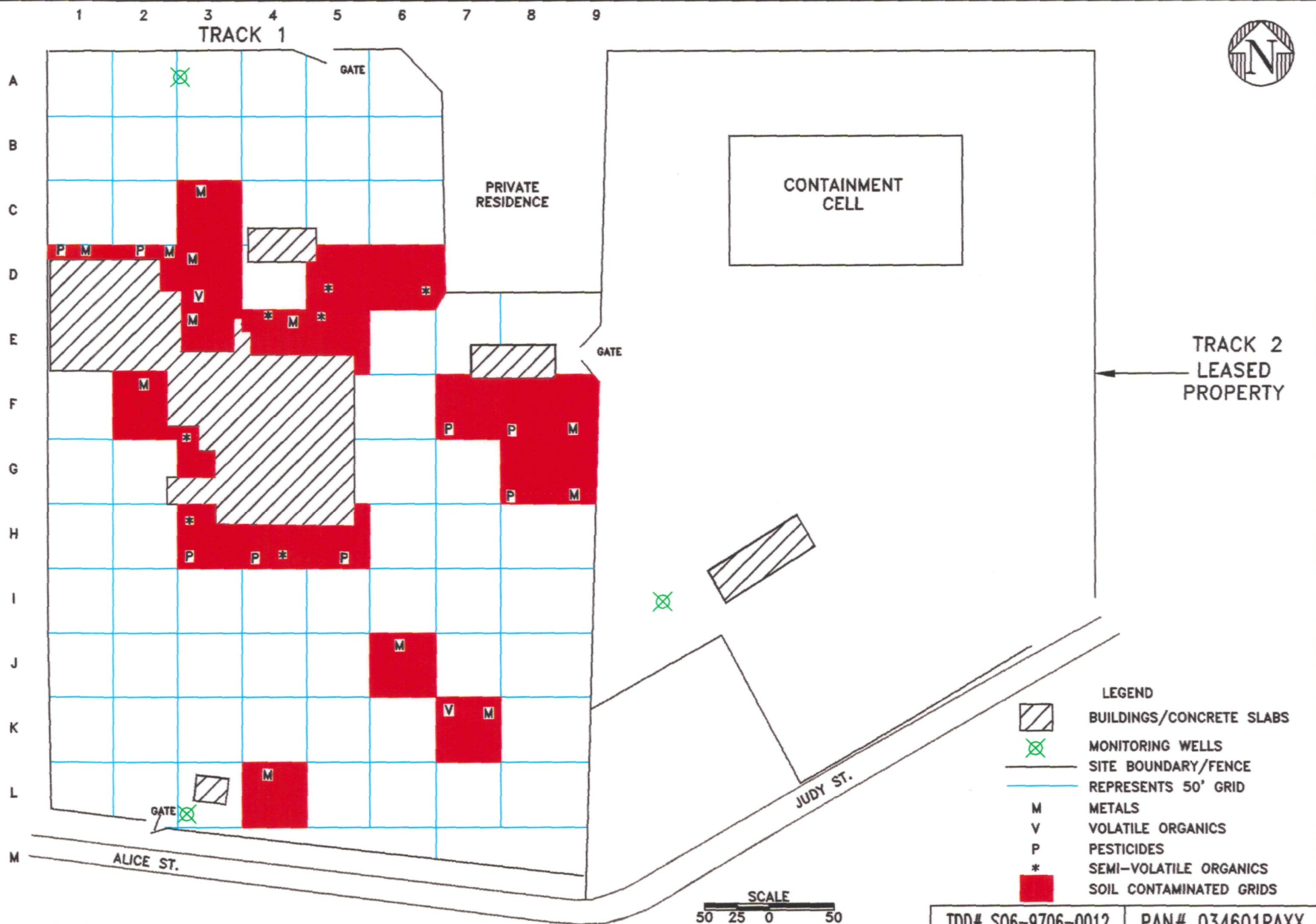
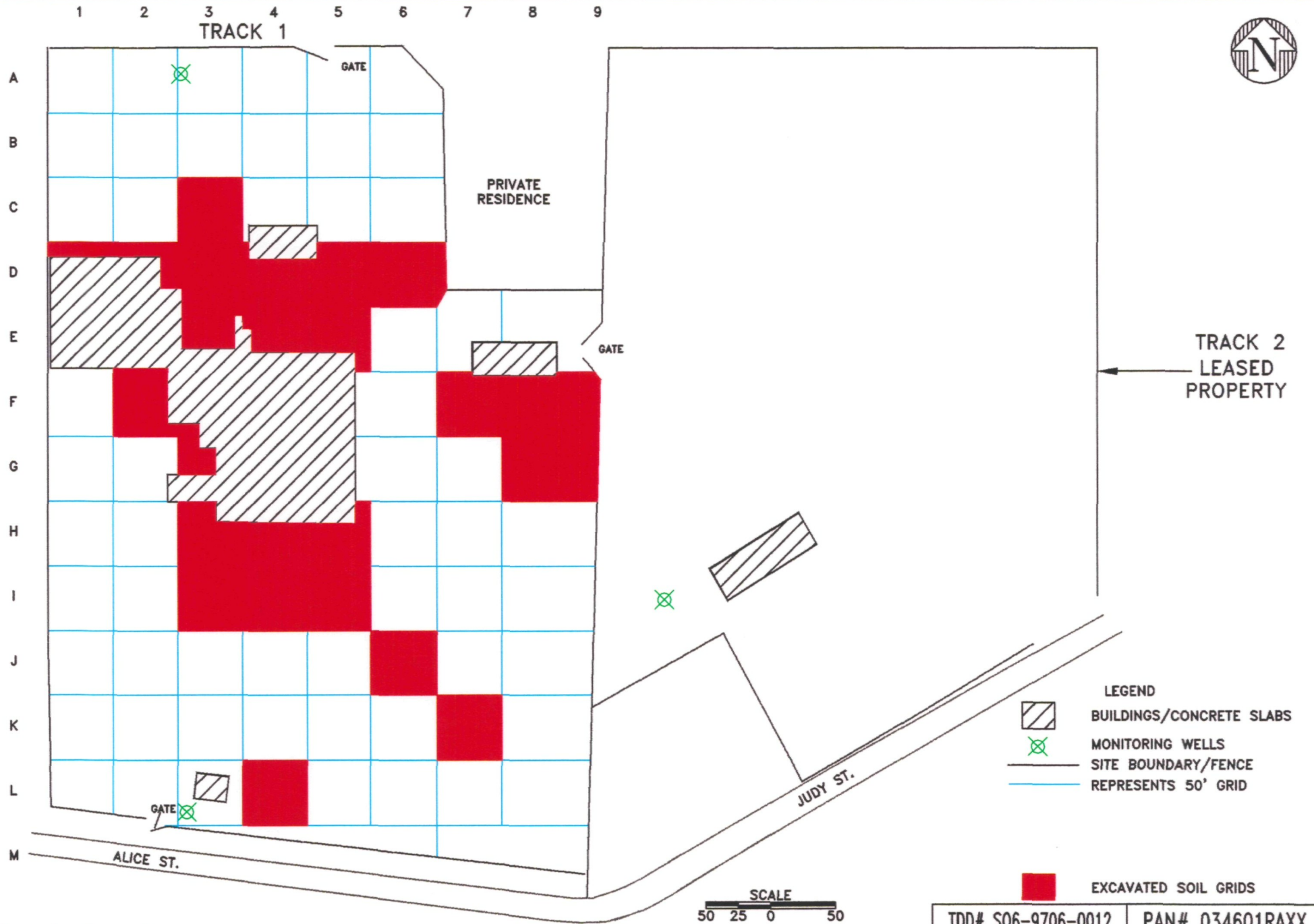


FIGURE 3
CONTAMINATED SOIL GRIDS
ODESSA DRUM COMPANY
Odessa, Ector County, Texas

CERCLIS# TXD008012254

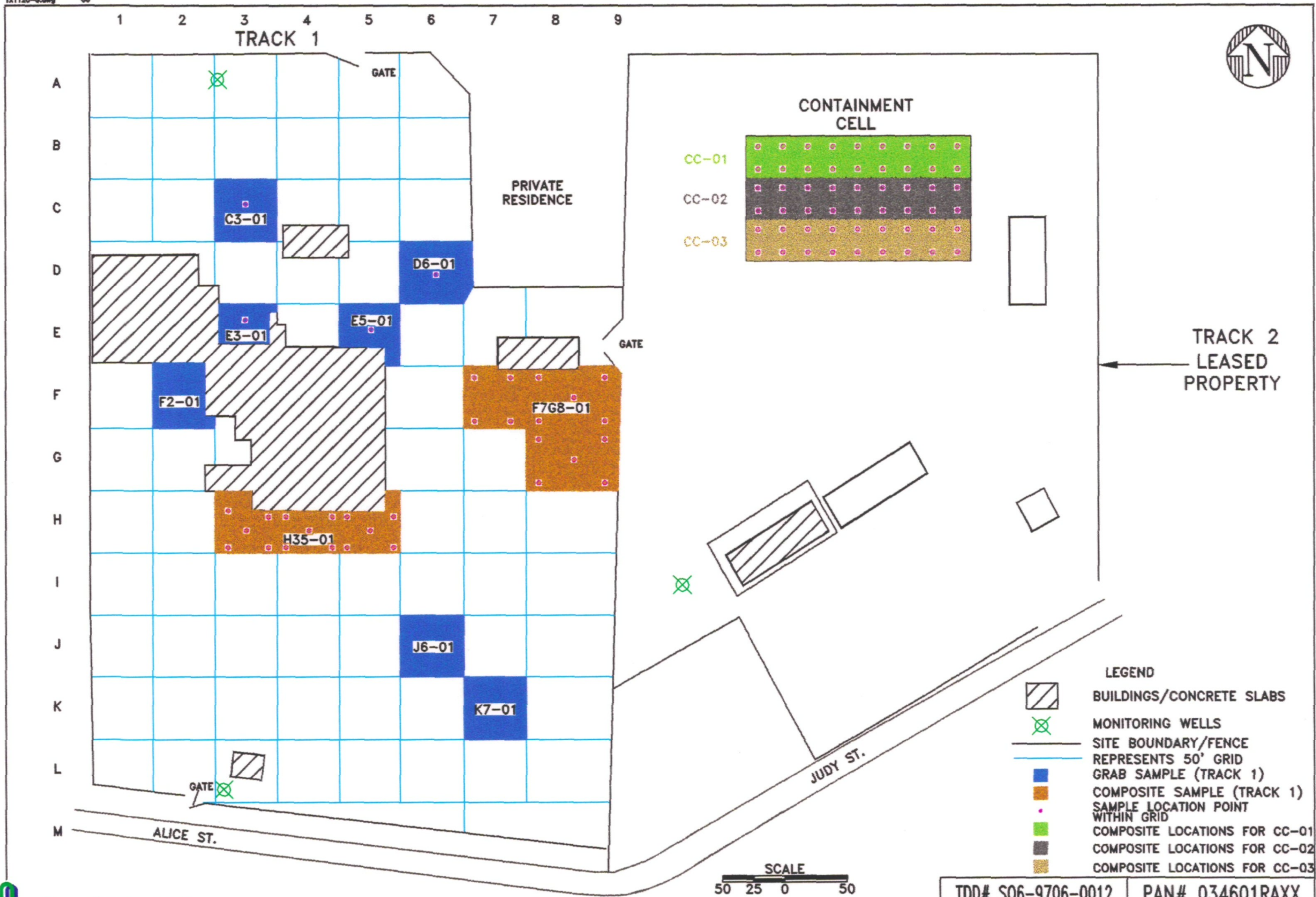


TDD# S06-9706-0012

PAN# 034601RAXX

FIGURE 4
EXCAVATED SOIL GRIDS
ODESSA DRUM COMPANY
Odessa, Ector County, Texas

CERCLIS# TXD008012254



ATTACHMENT B

Federal Records Center Transmittal and Receipt (FRCTR) List

**ODESSA DRUM COMPANY
CERCLIS NO. TXD008012254**

Copy of TDD No. S06-97-6-0012 and
Amendment A

Figure 1: Site Location Map

Figure 2: Site Sketch

Figure 3: Contaminated Soil Grids

Figure 4: Excavated Soil Grids

Figure 5: Sample Location Map

Table 1: Odessa Drum Organizational
Chart

Table 2: Surface Soil Sampling Data

Table 3: Analytical Results: Verification
of Cleanup Activities at Excavated Grids

Table 4: Analytical Results for
Containment Cell

Environmental Justice Report

Quality Assurance Sampling Plan (QASP)
(August 1, 1997) Page 1

Uniform Hazardous Waste Manifests:
Wastestream #1
(September 8-11, 1997)

Uniform Hazardous Waste Manifests:
Wastestreams #2 and #3
(September 2-5, 11-12, 1997)

Trucking Company Bill of Ladings
GSS, WTI and KCI Trucking Companies

Copy of ERRS Waste Profile Analytical
Results

START Analytical Procurement
Documents
(July 31, 1997)

Data Quality Assurance Review
(Volume 1: October 16, 1997
Volume 2: October 8, 1997
Volume 3: November 6, 1997
Volume 4: November 6, 1997)

Analytical Data Package

(Volume 1: September 26, 1997

Volume 2: September 26, 1997

Volume 3: November 6, 1997

Volume 4: November 6, 1997)

EPA Chain-of-Custody/Federal Express

Airbill Copies

(August 11, 1997; August 20, 1997;
August 27, 1997; September 12, 1997)

Copy of the Texas Risk Reduction
Standards

Copies of START Logbooks

(August 4 through September 14, 1997)

Ector County Sherriffs Report

(August 19, 1997)

Mounted Photographs

(August 4 through September 13, 1997)

Volume 1

Volume 2

Contractor Confidential: ERRS Delivery
Order Contract

(July 18, 1997, Revised August 5, 1997)

Contractor Confidential: ERRS Work
Plan
(July 29, 1997)

Contractor Confidential: ERRS Health &
Safety Plan
(July, 1997)

Contractor Confidential: ERRS 1900-55
signed originals
(July 20, 1997 through October 28,
1997)

ODESSA DRUM COMPANY

TXD008012254

TDD No. S06-9706-0012

FRCTR List

Diskette Copy

ATTACHMENT C
Environmental Justice Report

POTENTIAL ENVIRONMENTAL JUSTICE (EJ) INDEX PILOT

Date : 14 Dec 95 09:31:16 Thursday
 Requestor : DJAMES 6SFRP
 Site Id Number : TXD008012254
 Site Name : ODESSA DRUM
 County : ECTOR
 State/County FIPS Code : 48135
 Location : -102 25 5 31 54 35
 Quality Assurance Resource : 6

ODESSA DRUM 50 square mile study area

Minority Ranking Value (DVMAV) : 1	Percent Minority	= 26.5
Economic Ranking Value (DVECO) : 2	Percent Economically Stressed	= 28.1
Population Ranking Value (PF) : 2	Total Population	= 38529

Potential Environmental Justice Index (DVMAV * DVECO * PF) = 4

ODESSA DRUM 1 square mile study area

Minority Ranking Value (DVMAV) : 1	Percent Minority	= 14
Economic Ranking Value (DVECO) : 2	Percent Economically Stressed	= 31.3
Population Ranking Value (PF) : 2	Total Population	= 715

Potential Environmental Justice Index (DVMAV * DVECO * PF) = 4

POTENTIAL ENVIRONMENTAL JUSTICE (EJ) INDEX PILOT

The Potential Environmental Justice Index, or the independent subfactors comprising the index, should be used as a DEMOGRAPHIC CORRELATION VARIABLE for studies conducted by the PROGRAMS. These studies may be used to measure Agency policies or procedures regarding sociological equity for enforcement or permitting activities. The information given in this report does not represent the final analysis of a site in regard to Environmental Justice or RISK. The indices and raw data reported are indicators of Vulnerability for subgroups of people to other stressors.

SEE METHODOLOGY CRITERIA

POTENTIAL ENVIRONMENTAL JUSTICE (EJ) INDEX PILOT

The Potential Environmental Justice Index, or the independent subfactors comprising the index, should be used as a DEMOGRAPHIC CORRELATION VARIABLE for studies conducted by the PROGRAMS. These studies may be used to measure Agency policies or procedures regarding sociological equity for enforcement or permitting activities. The information given in this report does not represent the final analysis of a site in regard to Environmental Justice or RISK. The indices and raw data reported are indicators of Vulnerability for subgroups of people to other stressors.

METHODOLOGY CRITERIA

Environmental Justice Indexes are indicators of potential EJ concern. 1990 Census data for a Study Area is evaluated and ranked in relationship to state percentages. Ranking variables are multiplied to produce an index for prioritizing applications. The ranking variables are:

- ~ Minority Status, Degree of Vulnerability (DVMAV),
- ~ Economic Status, Degree of Vulnerability (DVECO),
- ~ and Total Population, Population Factor (PF).

-MINORITY STATUS (DVMAV) - For TX the percent minority is 39.4%.

-ECONOMIC STATUS (DVECO) - Economically Stressed is defined as Households making less than \$15,000 a year. For TX the percent economically stressed is 27.6%.

The Methodology for ranking values associated with Degrees of Vulnerability is

Ranking	Criteria
1	<= the State Percentage
2	> the State Percentage but <= 1.33 times the State Percentage
3	> 1.33 times the State Percentage but <= 1.66 times the State Percentage
4	> 1.66 times the State Percentage but <= 1.99 times the State Percentage
5	>= 2 times the State Percentage

-POPULATION RANKING FACTOR Total Population is ranked using the following criteria.

Ranking	Criteria	(evaluated on a 1 square mile basis)
0	Total Population = 0	
1	Total Population > 0 and < 200	
2	Total Population > 200 and < 1000	
3	Total Population > 1000 and < 5000	
4	Total Population > 5000	

Reference for Quality Assurance Resources

1	Personal Verification	7	AIRS
2	Reconciliation with Quad maps	8	PCS
3	Reported from archived files	9	GIS Verified
4	TRIS	10	Professional Judgement
5	RCRIS	11	Federal Facility Tracking System
6	CERCLIS		

ATTACHMENT D

Table 1: Odessa Drum Organizational Chart

Table 2: Surface Soil Sampling Data

**Table 3: Analytical Results: Verification of Cleanup Activities at
Excavated Grids**

Table 4: Analytical Results for Containment Cell

Table 1

**ODESSA DRUM COMPANY
ORGANIZATIONAL CHART**

Agencies or Parties Involved	Contact	Description of Participation
Region 6, EPA-RPB 1445 Ross Avenue Dallas, TX 75202 214/665-2268	Greg Fife, EPA-TM	Federal Task Monitor responsible for overall response/removal oversight and success.
Ecology and Environment, Inc., START Contractor 1999 Bryan St., Suite 2000 Dallas, TX 75201 214/220-0318	Marty Rutledge, Project Director Steve Cowan, Project Manager	Provided the EPA-TM with technical assistance regarding various aspects and activities of the project, contractor monitoring, sampling and maintaining site records and files.
CET Environmental Services, Inc. ERRS Contractor 275 Industrial Drive Jackson, MS 39209 601/944-1050	Mike Owens, Response Manager Jon Howley, Site Safety Officer/Transport and Disposal Coordinator Johnny Harrell, Foreman	Provided personnel and equipment for the removal activities, and arranged for off-site disposal of site wastes.
Waste Control Specialists, LLC 1710 W. Broadway Andrews, TX 79714	A. Paul Nowlin, Account Manager	Accepted wastestreams 2 and 3 for final disposal at their landfill facility.
Michigan Disposal Waste Treatment Plant 49360 N. I-94 Service Drive Belleville, MI 48111	--	Accepted wastestream #1 for chemical oxidation treatment and final disposal at their landfill facility.
El-Tex 100 S. Main, Suite H Summerville, SC 29483	Bill Hulsey	Arranged for off-site transport of waste stream #1 to Michigan Disposal Waste Treatment Plant

<p align="center">Table 2</p> <p align="center">SURFACE SOIL SAMPLING DATA</p>				
Sample ID	Grid No.	Composite/Grab	Requested Analyses	Date Collected
F2-01	F2	Grab	Total Chromium, Total Lead, and Total Mercury	8/11/97
D6-01	D6	Grab	Volatile organics; Semi-volatile organics; Pesticides; PCB's; Total Chromium; Total Lead; Total Mercury	8/11/97
K7-01	K7	Grab	Total Chromium; Total Lead; and Total Mercury	8/11/97
H35-01	H3; H4; H5	Composite	Volatile organics; Semi-volatiles organics; Pesticides; PCB's; Total Chromium; Total Lead; Total Mercury	8/11/97
M1-01	Duplicate of H35-01	Composite	Same as H35-01	8/20/97
E5-01	E5	Grab	Volatile organics; Semi-volatiles; Pesticides; PCB's; Total Chromium; Total Lead; Total Mercury	8/20/97
E3-01	E3	Grab	Total Chromium; Total Lead; Total Mercury	8/27/97
C3-01	C3	Grab	Total Chromium; Total Lead; Total Mercury	8/27/97
N1-01	Duplicate of C3-01	Grab	Total Chromium; Total Lead; Total Mercury	8/27/97
F768-01	F7, F8 and G8	Composite	Volatile organics, Semi-volatile organics; Pesticides; PCB's; Total Chromium; Total Lead; Total Mercury	8/27/97

Table 2				
SURFACE SOIL SAMPLING DATA				
Sample ID	Grid No.	Composite/Grab	Requested Analyses	Date Collected
P1-01	Backfill material	Composite	Volatile organics; Semi-volatile organics; Pesticides; PCB's; Total Chromium; Total Lead; Total Mercury	8/20/97
CC-01	Containment cell, Grid 01	Composite	Volatile organics; Semi-volatile organics; Pesticides; PCB's; Total Chromium; Total Lead; Total Mercury	9/12/97
CC-02	Containment cell, Grid 02	Composite	Volatile organics; Semi-volatile organics; Pesticides; PCB's; Total Chromium; Total Lead; Total Mercury	9/12/97
CC-03	Containment cell, Grid 03	Composite	Volatile organics; Semi-volatile organics; Pesticides; PCB's; Total Chromium; Total Lead; Total Mercury	9/12/97

Table 3

ANALYTICAL RESULTS: VERIFICATION OF CLEANUP ACTIVITIES AT EXCAVATED GRIDS

Analyte	Sample No: F2-01 Grid No: F2		Sample No: D6-01 Grid No: D6		Sample No: K7-01 Grid No: K7		Sample No: H35-01 Grid No: H3,H4 & H5		Sample No: M1-01 Grid No: Duplicate of H35-01		Sample No: E5-01 Grid No: E5	
	Conc. Det.	TxRRS	Conc. Det.	TxRRS	Conc. Det.	TxRRS	Conc. Det.	TxRRS	Conc. Det.	TxRRS	Conc. Det.	TxRRS
4,4'-DDT	--	1.88	0.0716	1.88	--	1.88	0.0567 J	1.88	0.0617 J	1.88	ND	1.88
4,4'-DDE	--	1.88	ND	1.88	--	1.88	1.731 J	1.88	2.0 J	1.88	1.83	1.88
4,4'-DDD	--	2.67	0.0815	2.67	--	2.67	0.0783 J	2.67	0.0683 J	2.67	ND	2.67
Endrin	--	82.3	0.045	82.3	--	82.3	0.0830	82.3	0.0600 J	82.3	0.0717 J	82.3
Dieldrin	--	0.040	0.0865	0.040	--	0.040	ND	0.040	ND	0.040	ND	0.040
alpha-chlordane	--	0.100	0.0266	0.100	--	0.100	ND	0.100	ND	0.100	ND	0.100
gamma-chlordane	--	82.3	0.0266	82.3	--	82.3	ND	82.3	ND	82.3	ND	82.3
Toluene	--	3,580.0	ND	3,580.0	--	3,580.0	ND	3,580.0	ND	3,580.0	0.005	3,580
Naphthalene	--	4,910.0	ND	4,910.0	--	4,910.0	ND	4,910.0	ND	4,910.0	0.009	4,910
1,3,5-trimethyl-benzene	--	NS	ND	NS	--	NS	ND	NS	ND	NS	0.004	NS
1,2,4-trimethyl-benzene	--	NS	ND	NS	--	NS	ND	NS	ND	NS	0.003	NS
Phenanthrene	--	NS	ND	NS	--	NS	ND	NS	ND	NS	2.40	NS
Pyrene	--	8,230.0	ND	8,230	--	8,230	ND	8,230	ND	8,230	0.840	8,230
Chromium	15.8	390.0	37.2	390.0	10.2	390.0	8.10	390.0	10.1	390.0	17.0	390.0
Lead	30.6	500.0	151.0	500.0	15.9	500.0	5.53	500.0	6.4	500.0	37.1	500.0
Mercury	ND	82.0	0.13	82.0	ND	82.0	ND	82.0	ND	82.0	0.480	82.0

Table 3 (Cont)

ANALYTICAL RESULTS: VERIFICATION OF CLEANUP ACTIVITIES AT EXCAVATED GRIDS

Analyte	Sample No: E3-01 Grid No: E2		Sample No: J6-01 Grid No: J6		Sample No: C3-01 Grid No: C3		Sample No: N1-01 Grid No: Duplicate of C3		Sample No: F7G8-01 Grid No: F7, F8, and G8	
	Conc. Det.	TxRRS	Conc. Det.	TxRRS	Conc. Det.	TxRRS	Conc. Det.	TxRRS	Conc. Det.	TxRRS
4,4'-DDT	--	1.88	--	1.88	--	1.88	--	1.88	0.0037	1.88
4,4'-DDE	--	1.88	--	1.88	--	1.88	--	1.88	0.0883 J	1.88
4,4'-DDD	--	2.67	--	2.67	--	2.67	--	2.67	0.0037	2.67
Endrin	--	82.3	--	82.3	--	82.3	--	82.3	ND	82.3
Dieldrin	--	0.040	--	0.040	--	0.040	--	0.040	ND	0.040
alpha-chlordane	--	0.100	--	0.100	--	0.100	--	0.100	ND	0.100
gamma-chlordane	--	82.3	--	82.3	--	82.3	--	82.3	ND	82.3
Toluene	--	3,580.0	--	3,580.0	--	3,580.0	--	3,580.0	ND	3,580.0
Naphthalene	--	4,910.0	--	4,910.0	--	4,910.0	--	4,910.0	ND	4,910.0
1,3,5-trimethylbenzene	--	NS	--	NS	--	NS	--	NS	ND	NS
1,2,4-trimethyl benzene	--	NS	--	NS	--	NS	--	NS	0.004	NS
Phenanthrene	--	NS	--	NS	--	NS	--	NS	ND	NS
Pyrene	--	8,230	--	8,230	--	8,230	--	8,230	ND	8,230
Chromium	3.67	390.0	6.37	390.0	6.30	390.0	8.78	390.0	43.0	390.0
Lead	ND	500.0	7.97 JH	500.0	4.88 JH	500.0	15.5 JH	500.0	52.6 JH	500.0
Mercury	0.22	82.0	0.14	82.0	ND	82.0	0.15	82.0	ND	82.0

(All concentrations expressed in ppm)

Key:

TxRRS - Texas Risk Reduction Standards

-- - Not analyzed for that analyte

ND - Not detected above instrument detection limit

NS - No established TxRRS

J - Detected concentration qualified as estimate due to quantitation limit being exceeded, thus, sample was re-analyzed at a higher dilution factor.

JH - Concentration detected was qualified as an estimate due to high laboratory control sample recovery, biased high.

Table 4						
ANALYTICAL RESULTS FOR CONTAINMENT CELL						
Analyte	Sample No: CC-1		Sample No: CC-2		Sample No: CC-3	
	Det. Conc.	TxRRS	Det. Conc.	TxRRS	Det. Conc.	TxRRS
4,4'-DDE	0.0072 J	1.88	0.2691 J	1.88	1.077 J	1.88
4,4'-DDD	ND	2.67	0.0340 J	2.67	0.0950 J	2.67
4,4'-DDT	0.0016	1.88	0.0295 J	1.88	0.2660 J	1.88
Chromium	7.74	390.0	10.6	390.0	10.1	390.0
Lead	6.15	500.0	14.8	500.0	16.5	500.0

(All concentrations expressed in PPM's)

Key:

- TxRRS - Texas Risk Reduction Standard
- ND - Not detected above detection limit
- J - Qualified as estimated concentration due to quantitation limit being exceeding, thus, requiring sample to be re-analyzed at a higher dilution factor.

ATTACHMENT E

Copy of TDD No. S06-9706-0012 and Amendment A

START CONTRACT #: 68-W6-0013

Activity Type: IV.B.2 Removal Support (Fund lead)		Created On: 06/19/97	
Task: medium		DPO/PO: Thompson	
General Task Description: Provide assistance during response action		Task Monitor: Fife; G.; 214/665-6773	
Estimated Completion Date: 09/20/97		Task Codes: RA; RV	
Site/Project Name: Odessa Drum Co., Inc.		Estimated Cost: \$50,000.00	
County Name: Ector		Estimated Hrs: (b) (4)	
City, State, Zip: Odessa, TX		Dedicated: (b) (4)	
SSID #: Z2 CERCLIS #: TXD008012254		Non-Dedicated: 0	
Funds Source: CERCLA		Deliverable: Formal Report, Other	
DCN #(s):		Overtime: Yes	
BER033 (AN4) CERCLA \$50,000.00		Reference: No	
TDD Expenditure Limit: \$50,000.00		Staffing: Dedicated Staff	
Hours: (b) (4)		Priority: Medium	
Dedicated Hours: (b) (4)		Start Date: 06/19/97	
Non-Dedicated Hours: 0			

Specific Element(s): Procure Laboratory Services, Document Site Access, Maintain Site Log Book, Organize Site Files, Prepare Safety Plan, Prepare Sampling Plan, Prepare Site Sketch/Map, Provide Photo Documentation, Review Validation of Analytical Laboratory Results

- Comments:** 1. Ref: Deliverable, Other: Interim Deadline, July 1, 1997.
2. Finalize maps of extent of contamination (data from investigation).
3. Update maps during action.
4. Prepare QASP for verification sampling.
5. Prepare HASP.
6. Perform all other standard operating procedures for removal actions.

A. TDD Created By: - Signed by William Jernigan/R6/USEPA/US on 06/19/97 04:10:08 PM, according to /
06/19/97

William Jernigan/R6/USEPA/US

Signed On:

B. Reviewed and Approved By: - Signed by William Jernigan/R6/USEPA/US on 06/19/97 04:10:07 PM, acc
Project Officer: William Jernigan/R6/USEPA/US

06/19/97

Signed On:

Chris Amis

6/20/97

Cowan
034601RAXX
00362



Technical Direction Document Amendment

06-97-06-0012-A

START CONTRACT #: 68-W6-0013

Activity Type: IV.B.2 Removal Support (Fund lead) Task: medium General Task Description: Provide assistance during response action Completion Date: 11/28/97		Created On: 08/05/97 DPO/PO: Thompson Task Monitor: Fife G. (214/665-6773) Task Codes: RA; RV
Site/Project Name: Odessa Drum Co. County Name: Ector City, State, Zip: Odessa, TX SSID #: 22 CERCLIS #: TXD008012254		Estimated Cost : \$.00 Estimated Hrs: 0 Dedicated: 0 Non-Dedicated: 0
Funds Source: CERCLA DCN #(s): BER033 (AN4) CERCLA \$.00		Deliverable: Formal Report, Other Overtime: Yes Reference: No
TDD Expenditure Limit: \$50,000.00 Hours: (b) (4) (b) (4) Dedicated Hours: (b) (4) Non-Dedicated Hours: 0		Staffing: Dedicated Staff Priority: High Start Date: 06/19/97

Specific Element(s): Procure Laboratory Services, Document Site Access, Maintain Site Log Book, Organize Site Files, Prepare Safety Plan, Prepare Sampling Plan, Prepare Site Sketch/Map, Provide Photo Documentation, Review Validation of Analytical Laboratory Results

Comments: This amendment confirms original authorization for laboratory analysis of heavy metals, pesticides, and full organic (estimated cost \$6,875) and extends completion date to accommodate work arrangements. (Note: analytical cost was included in original funding estimate.)

Original Text:

1. Ref: Deliverable, Other: Interim Deadline, July 1, 1997.
2. Finalize maps of extent of contamination (data from investigation).
3. Update maps during action.
4. Prepare QASP for verification sampling.
5. Prepare HASP.
6. Perform all other standard operating procedures for removal actions.

Standard Language: Coordinate with Task Monitor

A. TDD Created By: - Signed by William Jernigan/R6/USEPA/US on 08/01/97 12:50:09 PM, according to /

William Jernigan/R6/USEPA/US

08/01/97

Signed On:

B. Reviewed and Approved By: - Signed by Tobin Osterberg/R6/USEPA/US on 08/05/97 04:11:16 PM, accor

Contract Officer:

Amendment #06-97-06-0012-A Printed On: 08/05/97 at 04:11:23 PM

08/05/97

Signed On:

8/6/97